

WHAT IS CLAIMED IS:

1. A method for substantively (a) imparting fragrance to and/or (b) substantially eliminating malodours from and/or (c) covering malodours evolved from and/or (d) preventing malodour formation in at least one fabric article for an extended period of time comprising the steps of:
 - i. providing one or more exposed surface areas of one or more fabric articles;
 - ii. providing an enclosure equipped with at least one pressure-activated air atomizer having an externally-located spray nozzle communicating with the interior of said enclosure, said nozzle having from 1 up to a plurality of nozzle exit ports having nozzle exit port effective diameters, D_{NPi} ;
 - iii. preparing a plurality of microcapsules each of which is composed of a rupturable external wall of a melamine-formaldehyde polymer enclosing from about 10 weight % to about 30 weight % of a first functional substance selected from the group consisting of (a) a fragrance composition each of the components of which has a $C \log_{10}P$ of between 2.5 and 8, wherein P is the n-octanol/water partition coefficient of said component; (b) a malodour counteracting composition each of the components of which has a $C \log_{10}P$ of between 2.5 and 8, wherein P is the n-octanol/water partition coefficient of said component; and (c) a malodour-preventing composition each of the components of which has a $C \log_{10}P$ of between 2.5 and 8, wherein P is the n-octanol/water partition coefficient of said component, each of said microcapsules having an average effective diameter $\overline{D_{MC}}$ of from about 5 microns to about 80 microns, each of which microcapsule has an effective diameter of D_{MCi} wherein the smallest of D_{NPi} is substantially greater than the greatest of D_{MCi} wherein $\overline{D_{MC}} = \frac{1}{N} \sum D_{MCi}$ and N represents the number of microcapsules in the slurry contained in said enclosure;

- iv. providing an aqueous solution comprising (a) water, (b) a compatible solvent selected from the group consisting of ethanol, the mono- C_1 or C_2 ether of a mono-, di-, or tri-1,2-propylene glycol and the di- C_1 or C_2 ether of a mono-, di- or tri-1,2-propylene glycol, (c) a silicone polymer, (d) a compatible non-ionic surfactant, (e) a compatible preservative and (f) a compatible suspending agent;
- v. admixing said plurality of microcapsules with said aqueous solution at a level of from about 0.1 weight % to about 0.4 weight % of microcapsules based on the weight of aqueous solution, thereby forming a microcapsule slurry wherein said microcapsules are suspended in said slurry and each of said microcapsules has a settling velocity in said slurry, V_s equal to about 0;
- vi. optionally causing a non-encapsulated second functional substance selected from the group consisting of (a) a fragrance composition each of the components of which has a $C \log_{10}P$ of between 1 and 8, wherein P is the n-octanol/water partition coefficient of said component; (b) a malodour counteracting composition each of the components of which has a $C \log_{10}P$ of between 1 and 8, wherein P is the n-octanol/water partition coefficient of said component; and (c) a malodour-preventing composition each of the components of which has a $C \log_{10}P$ of between 1 and 8, wherein P is the n-octanol/water partition coefficient of said component to be in admixture with said slurry by means of admixing said second functional composition (A) with said aqueous solution or (B) with said slurry;
- vii. placing said microcapsule slurry into said enclosure;
- viii. situating said enclosure whereby the nozzle exit ports of the at least one externally-located spray nozzle are each substantially located in a plane substantially parallel to and opposite said one or more exposed surface areas of said one or more fabric articles at a substantially perpendicular mean distance of from about 0 to about 3 meters from said one or more exposed surface areas of said one or more fabric articles;

- ix. applying sufficient pressure to said slurry located within said enclosure to enable said slurry to be sprayed through said one or more nozzle exit ports onto said one or more exposed surface areas of said one or more fabric articles whereby said microcapsules are effectively adhered to said one or more exposed surface areas of said one or more fabric articles thereby forming one or more microcapsule-fixed fabric article surface areas; and whereby (a) the concentration of the functional substance contained in the slurry is from about 0.03% to about 0.8% immediately prior to the step ix and (b) subsequent to the step ix when said microcapsule-fixed fabric article surface areas are rubbed, said microcapsules rupture, thereby emitting said first functional substance.
2. The process of claim 1 wherein a non-encapsulated second functional substance selected from the group consisting of (a) a fragrance composition each of the components of which has a $C \log_{10}P$ of between 1 and 8, wherein P is the n-octanol/water partition coefficient of said component; (b) a malodour counteracting composition each of the components of which has a $C \log_{10}P$ of between 1 and 8, wherein P is the n-octanol/water partition coefficient of said component; and (c) a malodour-preventing composition each of the components of which has a $C \log_{10}P$ of between 1 and 8, wherein P is the n-octanol/water partition coefficient of said component is caused to be in admixture with said slurry by means of admixing said second functional composition (A) with said aqueous solution or (B) with said slurry.
3. The process of claim 1 wherein said first functional substance comprises a mixture of zinc ricinoleate or a solution thereof and a substituted monocyclic organic compound selected from the group consisting of:
- 1-cyclohexylethan-1-yl butyrate;
 - 1-cyclohexylethan-1-yl acetate;
 - 1-cyclohexylethan-1-ol;
 - 1-(4'-methylethyl)cyclohexylethan-1-yl propionate; and
 - 2'-hydroxy-1'-ethyl(2-phenoxy)acetate.

4. The process of claim 2 wherein said first functional substance and said second functional substance each comprises a mixture of zinc ricinoleate or a solution thereof and a substituted monocyclic organic compound selected from the group consisting of:
- 1-cyclohexylethan-1-yl butyrate;
 - 1-cyclohexylethan-1-yl acetate;
 - 1-cyclohexylethan-1-ol;
 - 1-(4'-methylethyl)cyclohexylethan-1-yl propionate; and
 - 2'-hydroxy-1'-ethyl(2-phenoxy)acetate.
5. The process of claim 1 wherein said first functional substance is a fragrance composition which effects malodour suppression.
6. The process of claim 2 wherein said first functional substance is a fragrance composition which effects malodour suppression and said second functional substance is a fragrance composition which effects malodour suppression.
7. The process of claim 2 wherein said first functional substance comprises a mixture of zinc ricinoleate or a solution thereof and a substituted monocyclic organic compound selected from the group consisting of:
- 1-cyclohexylethan-1-yl butyrate;
 - 1-cyclohexylethan-1-yl acetate;
 - 1-cyclohexylethan-1-ol;
 - 1-(4'-methylethyl)cyclohexylethan-1-yl propionate; and
 - 2'-hydroxy-1'-ethyl(2-phenoxy)acetate
- and said second functional substance is a fragrance composition which effects malodour suppression.
8. The process of claim 2 wherein said first functional substance is a fragrance composition which effects malodour suppression and said second functional

substance comprises a mixture of zinc ricinoleate or a solution thereof and a substituted monocyclic organic compound selected from the group consisting of:

- 1-cyclohexylethan-1-yl butyrate;
- 1-cyclohexylethan-1-yl acetate;
- 1-cyclohexylethan-1-ol;
- 1-(4'-methylethyl)cyclohexylethan-1-yl propionate; and
- 2'-hydroxy-1'-ethyl(2-phenoxy)acetate.

9. The process of claim 1 wherein the scaled aesthetically-pleasing fragrance intensity, Y of the functional substance vs. time in days, X, subsequent to rubbing is defined according to the algorithm:

$$Y = \alpha X^3 + \beta X^2 + \gamma X + \delta$$

wherein $-0.05 \leq \alpha \leq +0.03$;

$-2.0 \leq \beta \leq +0.3$;

$-1.0 \leq \gamma \leq +5.0$; and

$-1.0 \leq \delta \leq +5.0$.

10. The process of claim 1 wherein at least a finite portion of the microcapsules is in contact with a polymeric silicone phospholipid.
11. The process of claim 10 wherein the polymeric silicone phospholipid is prepared by the phosphorylation reaction of a terminal dimethicone copolyol with a phosphating agent followed by neutralization of the phosphate with base followed by a condensation reaction with an epihalohydrin followed by conducting a n-alkylation reaction with an amine.

12. A microcapsule consisting essentially of a melamine-formaldehyde polymeric shell and enclosed within the shell a composition comprising a mixture of zinc ricinoleate or a solution thereof and a substituted monocyclic organic compound selected from the group consisting of:
- 1-cyclohexylethan-1-yl butyrate;
 - 1-cyclohexylethan-1-yl acetate;
 - 1-cyclohexylethan-1-ol;
 - 1-(4'-methylethyl)cyclohexylethan-1-yl propionate; and
 - 2'-hydroxy-1'-ethyl(2-phenoxy)acetate.
13. A slurry comprising an aqueous base, a microcapsule suspended in said base consisting essentially of a melamine-formaldehyde polymeric shell; enclosed within the shell a functional ingredient selected from the group consisting of (a) a fragrance composition each of the components of which has a $C \log_{10}P$ of between 2.5 and 8, wherein P is the n-octanol/water partition coefficient of said component, and (b) a malodour counteracting composition each of the components of which has a $C \log_{10}P$ of between 2.5 and 8, wherein P is the n-octanol/water partition coefficient of said component, and in contact with said microcapsule, a polymeric silicone phospholipid.
14. The slurry of claim 13 wherein the polymeric silicone phospholipid is prepared by the phosphorylation reaction of a terminal dimethicone copolyol with a phosphorylating agent followed by neutralization of the phosphate with base followed by a condensation reaction with an epihalohydrin followed by conducting a n-alkylation reaction with an amine.
15. The process of claim 1 wherein the aqueous solution provided in step iv consists essentially of (a) from about 80 to about 93 parts by weight of water; (b) from about 4 to about 8 parts by weight of ethanol; (c) from about 2 to about 3 parts by weight of non-ionic surfactant; (d) from about 0.05 to about 0.5 parts by weight of preservative;

- (e) from about 0.1 to about 2 parts by weight of silicone polymer and (f) from about 0.05 to about 0.1 parts by weight of suspending agent.
16. The process of claim 15 wherein the non-ionic surfactant is a mixture of the hydroxy-octaethoxy ethers of n-nonanol and n-undecanol; the preservative is hexahydro-1,3,5-tris(2-hydroxyethyl)-s-triazine and the suspending agent is selected from the group consisting of attapulgite clay, xanthan gum, hydroxypropyl cellulose having a molecular weight of from about 50,000 to about 800,000, colloidal silica, ethyl cellulose having a particle size of from about 0.004 microns to about 0.130 microns, a surface area of from about 100 m² per gram to about 500 m² per gram and a density of from about 1.0 to about 4.0 pounds per ft³.
17. The slurry of claim 13 wherein the aqueous base consists essentially of (a) from about 80 to about 93 parts by weight of water; (b) from about 4 to about 8 parts by weight of ethanol; (c) from about 2 to about 3 parts by weight of non-ionic surfactant; (d) from about 0.05 to about 0.5 parts by weight of preservative; (e) from about 0.1 to about 2 parts by weight of silicone polymer and (f) from about 0.05 to about 0.1 parts by weight of suspending agent.
18. The slurry of claim 17 wherein the non-ionic surfactant is a mixture of the hydroxy-octaethoxy ethers of n-nonanol and n-undecanol; the preservative is hexahydro-1,3,5-tris(2-hydroxyethyl)-s-triazine and the suspending agent is selected from the group consisting of attapulgite clay, xanthan gum, hydroxypropyl cellulose having a molecular weight of from about 50,000 to about 800,000, colloidal silica, ethyl cellulose having a particle size of from about 0.004 microns to about 0.130 microns, a surface area of from about 100 m² per gram to about 500 m² per gram and a density of from about 1.0 to about 4.0 pounds per ft³.
19. A slurry comprising an aqueous base, admixed with said base a non-confined fragrance composition each of the components of which has a C log₁₀P of between 1 and 8, wherein P is the n-octanol/water partition coefficient of said component, a

microcapsule suspended in said base consisting essentially of a melamine-formaldehyde polymeric shell; enclosed within the shell a functional ingredient selected from the group consisting of (a) a fragrance composition each of the components of which has a $C \log_{10}P$ of between 2.5 and 8, wherein P is the n-octanol/water partition coefficient of said component, and (b) a malodour counteracting composition each of the components of which has a $C \log_{10}P$ of between 2.5 and 8, wherein P is the n-octanol/water partition coefficient of said component, and in contact with said microcapsule and said non-confined fragrance composition, a polymeric silicone phospholipid.

20. The slurry of claim 19 wherein the aqueous base consists essentially of (a) from about 80 to about 93 parts by weight of water; (b) from about 4 to about 8 parts by weight of ethanol; (c) from about 2 to about 3 parts by weight of non-ionic surfactant; (d) from about 0.05 to about 0.5 parts by weight of preservative; (e) from about 0.1 to about 2 parts by weight of silicone polymer and (f) from about 0.05 to about 0.1 parts by weight of suspending agent.
21. The slurry of claim 20 wherein the non-ionic surfactant is a mixture of the hydroxy-octaethoxy ethers of n-nonanol and n-undecanol; the preservative is hexahydro-1,3,5-tris(2-hydroxyethyl)-s-triazine and the suspending agent is selected from the group consisting of attapulgitic clay, xanthan gum, hydroxypropyl cellulose having a molecular weight of from about 50,000 to about 800,000, colloidal silica, ethyl cellulose having a particle size of from about 0.004 microns to about 0.130 microns, a surface area of from about 100 m² per gram to about 500 m² per gram and a density of from about 1.0 to about 4.0 pounds per ft³.